Project Title

Bayou Terrebonne Riparian Project

Location

Thibodaux, Louisiana

Project Duration

October 2005 to September 2008

Project Investigators

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Project Summary

Riparian zones along urban water courses provide excellent opportunity for wildlife habitat, non-point source pollution filtering and urban interface. Riparian zones are comprised of various kind of vegetation, including small trees, grasses, shrubs and vines and often surrounded by larger forest trees. If these zones are managed to maintain a continuous cover crop with an extensive and dynamic root system, large quantities of water, associated chemicals, and moving sediments from adjacent areas can be kept on site before they are lost and contribute to water pollution.

Areas along Bayou Terrebonne between Thibodaux and Houma along Hwy 24 have become overgrown with invasive and non desirable species. Reclaiming these areas is often a time consuming, expensive effort that can have varying results. Continual mowing, scraping and cutting non desirable species are not cost effective methods for long term riparian zone health.

Objectives

1. This project will demonstrate the use of various herbaceous and woody species that will provide low maintenance perennial cover. The development of field planting techniques will involve testing of various planting techniques that have been used to plant riparian areas and the development of new methodologies that will be tailored to the conditions of Louisiana. The various techniques will be

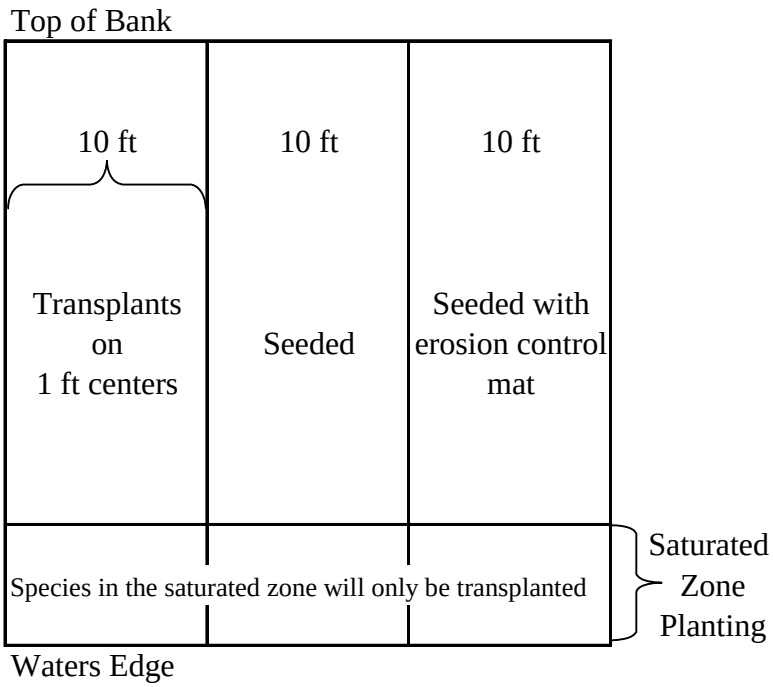
evaluated and standard operating procedures will be developed for transfer to managers and practitioners of riparian zone restoration.

2. In selected areas along the bayou where landowner acceptance is obtained, riparian zone areas will be expanded into forested areas. Areas that have invasive species concerns will be given a higher priority. Woody species will be selected after sites have been acquired. Control of invasive species will begin in fall 2006.

Materials and Methods

A quality control assessment plan (QAPP) will be developed by NRCS outlining techniques and methods used in this demonstration project. Five species will be used in the bank stabilization demonstration. Common bermudagrass (*Cynodon dactylon*) will be used as the standard species compared to four native species including switchgrass (*Panicum virgatum*), seashore paspalum (*Paspalum vaginatum*), Florida paspalum (*Paspalum floridanum*), and meadow beauty (*Rhexia mariana*). Each of these combinations will be planted with 5 species planted along the waters edge including pickerelweed (*Pontederia cordata*), soft stem bulrush (*Juncus effuse*), maidencane (*Panicum hemitomon*), buttonbush (*Cephalanthus occidentalis*), and swamp rose mallow (*Hibiscus moscheutos*).

Each species will be planted using transplants on one foot centers, seeded into a prepared seedbed, and seeded with erosion control blanket as a mulch cover. Each treatment will be replicated 5 times per species for a total of 25 plots. Total area needed for this demonstration will be 750 linear feet.



Rep 1

Bermudagrass	Switchgrass	Seashore paspalum	Florida paspalum	Meadow beauty
Pickerelweed				

Rep 2

Seashore paspalum	Bermudagrass	Switchgrass	Meadow beauty	Florida paspalum
Soft stem bullrush				

Rep 3

Meadow beauty	Seashore paspalum	Switchgrass	Florida paspalum	Bermudagrass
Maidencane				

Rep 4

Bermudagrass	Seashore paspalum	Meadow beauty	Switchgrass	Florida paspalum
Buttonbush				

Rep 5

Switchgrass	Seashore paspalum	Bermudagrass	Florida paspalum	Meadow beauty
Swamp rose mallow				

Deliverables

The estimated dates of completion for each deliverable assume that the cooperative agreement will be fully executed October 1, 2005. Deliverable dates should be adjusted accordingly if delays occur with agreement.

1) January 2006 - Quality Assurance Project Plan (QAPP) will be submitted to BTNEP.

2) February / April 2006 – Plots will be established on Bayou Terrebonne.

3) March 2006 – August 2007 – Collection of local ecotypes of test species.

4) October 2006 - October 2008 – Evaluation of demonstration sites.

5) October 2008 – Final report on riparian zone plantings to BTNEP.

Budget Summary

Personnel	**FY 2006**	**FY2007**	**FY2008**	**Project Total**
Plant Materials Specialist	1,250	1,500	2,500	**5,250**
Forester	1,250	1,500	1,800	**4,550**
PMC Manager	3,500	2,000	4,000	**9,500**
Technicians	5,000	3,500	1,000	**9,500**
Personnel Subtotal	*$ 11,000*	*$ 8,500*	*$ 9,300*	***28,800***
Operational Use				
Vehicles (3)	2,000	2,500	3,000	**7,500**
Trailers (2)	500	750	-	**1,250**
Farm Equipment	3,000	1,000	-	**4,000**
Infrastructure Subtotal	*$ 5,500*	*$ 4,250*	*$ 3,000*	*12,750*
Nursery Production				
Demo Site Prep and Maintanence	12,500	15,000	-	**27,500**
Greenhouse Operation Expenses	5,000	-	-	**5,000**
Supplies / Seed / Irrigation	5,000	4,000	2,500	**11,500**
Nursery Subtotal	*$ 22,500*	*$ 19,000*	*$ 2,500*	*44,000*
Project Total				
	$ 39,000	**$ 31,750**	**$ 14,800**	***$ 85,550***